PRIOR ART

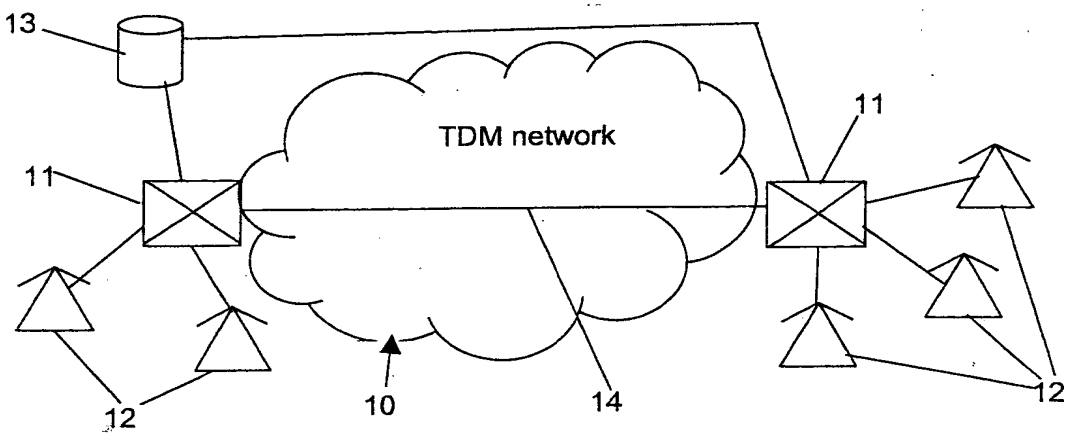

Figure 1

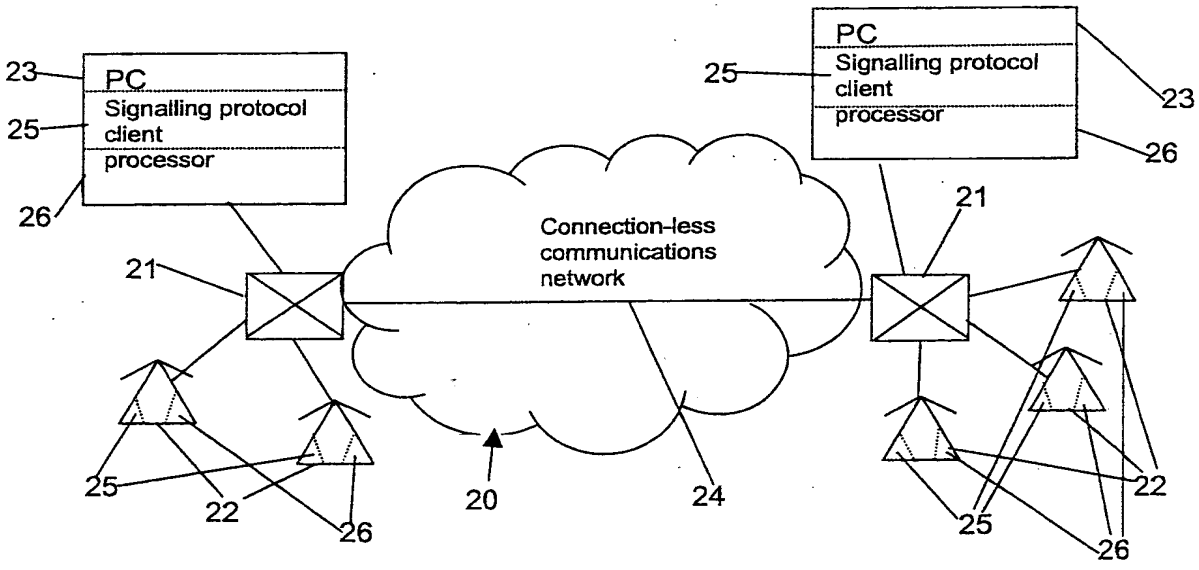

Figure 2

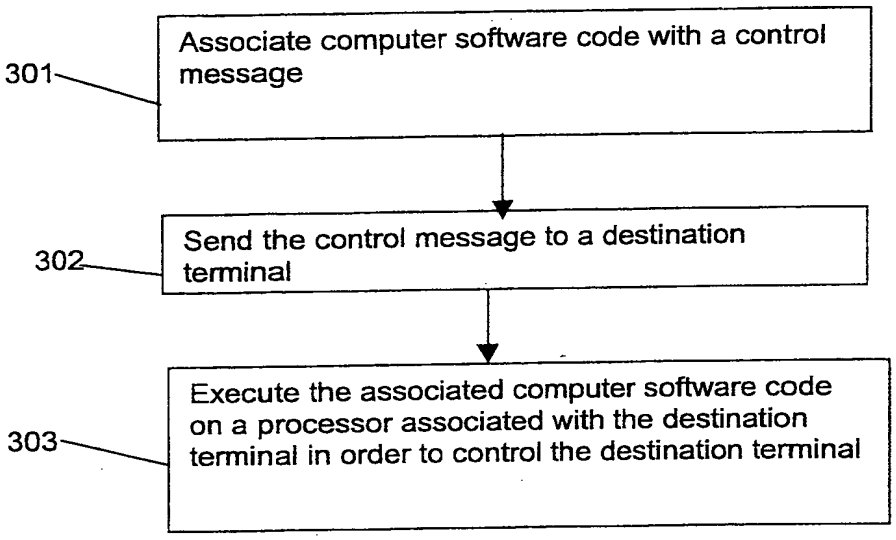

Figure 3

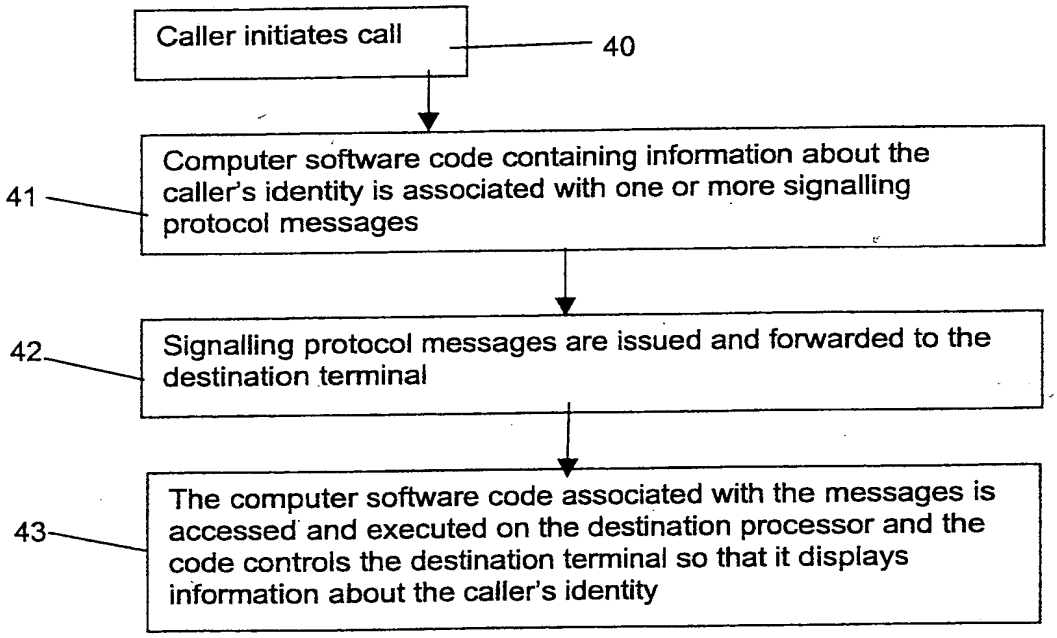

Figure 4

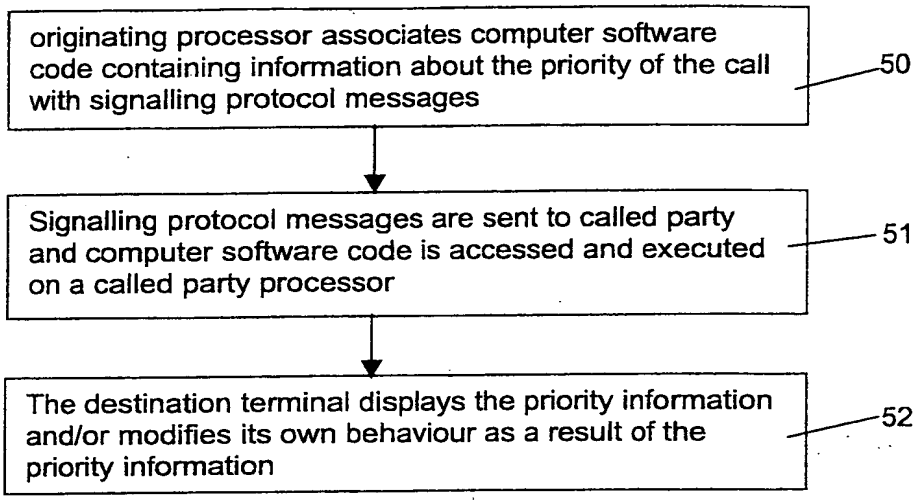

Figure 5

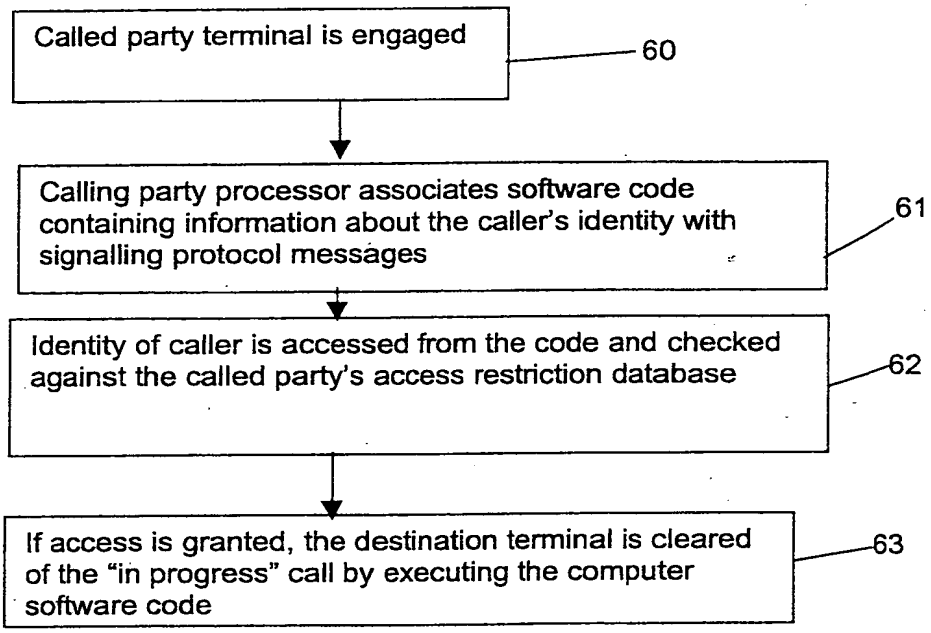

Figure 6

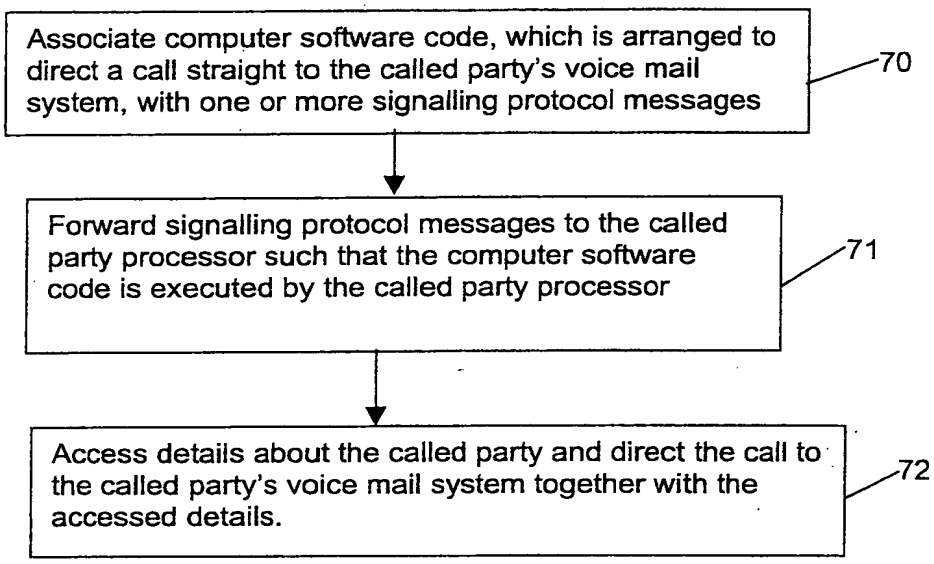

Figure 7

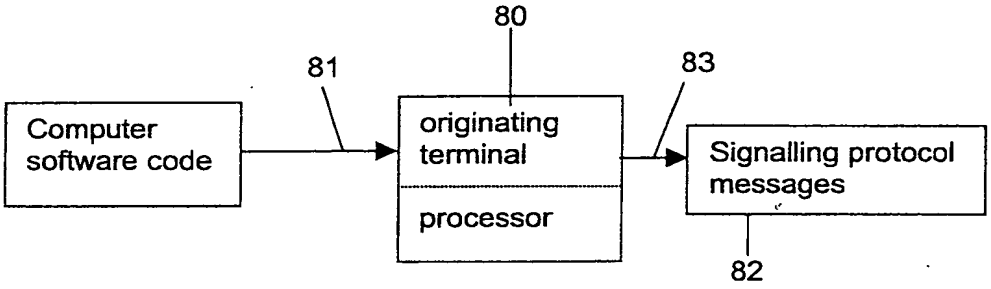

Figure 8

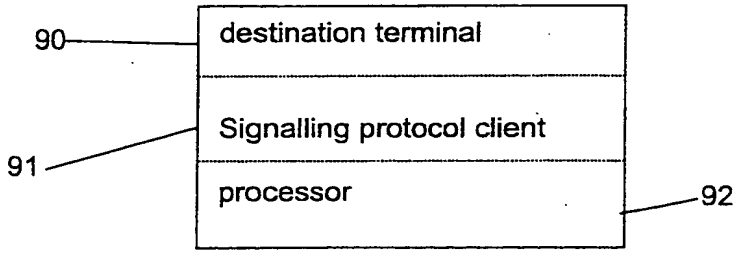

Figure 9

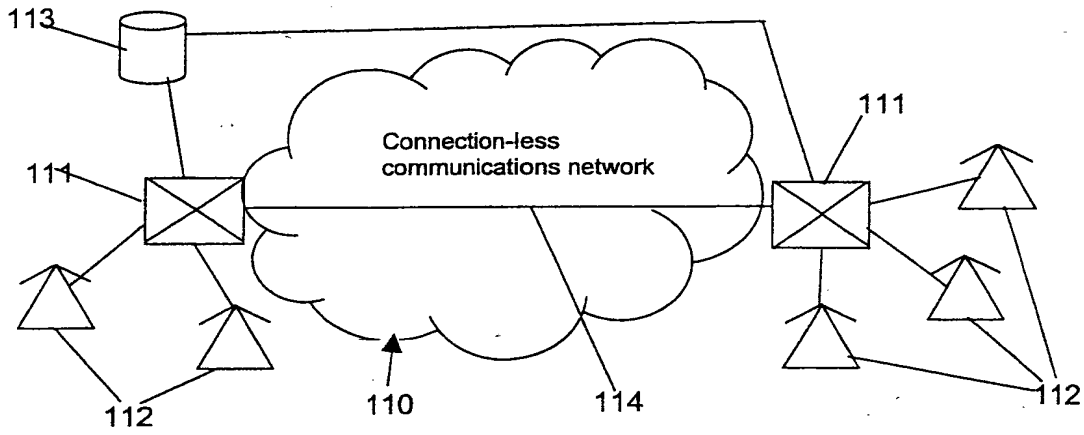

Figure 10

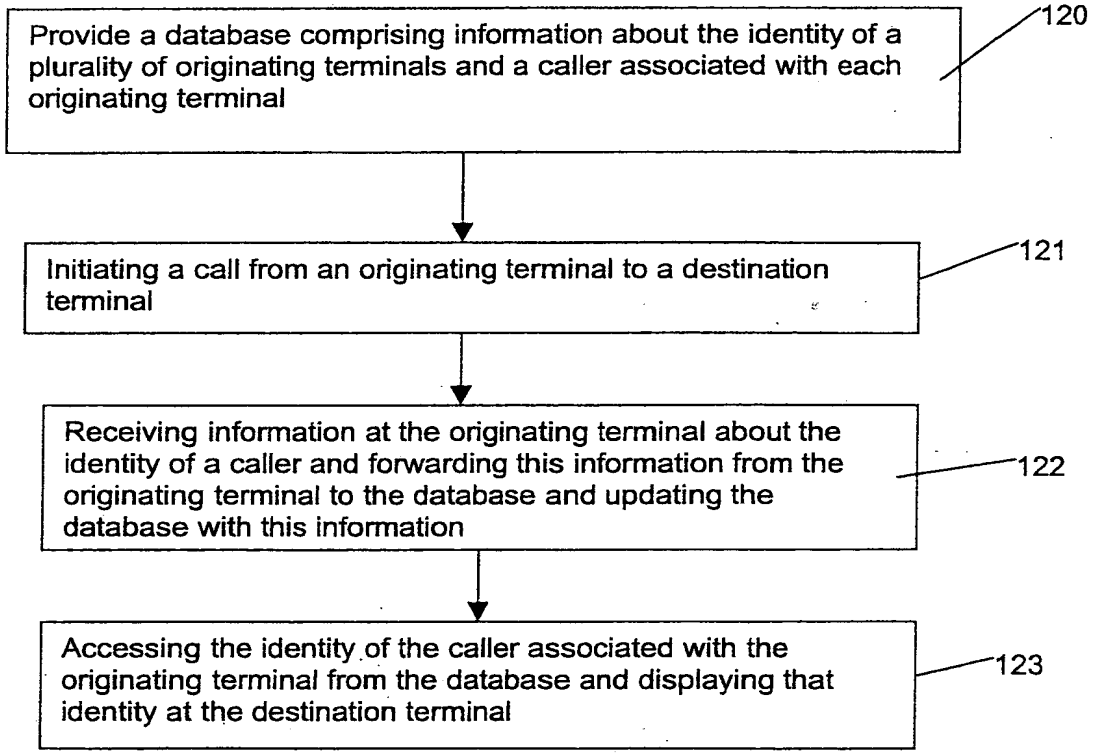

Figure 11

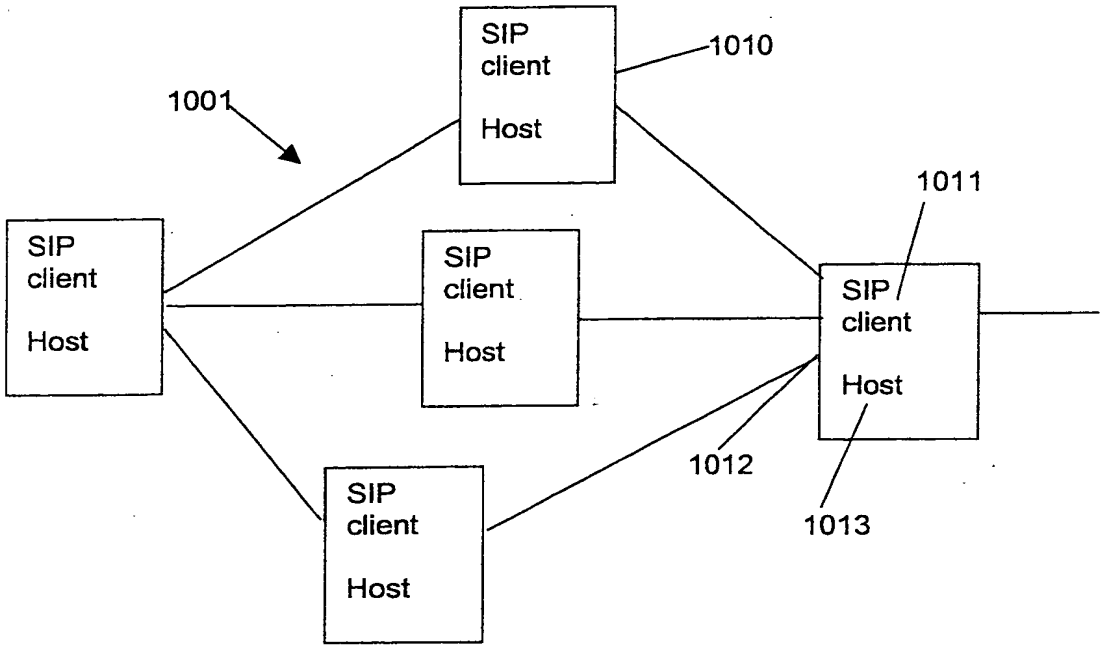

Figure 12

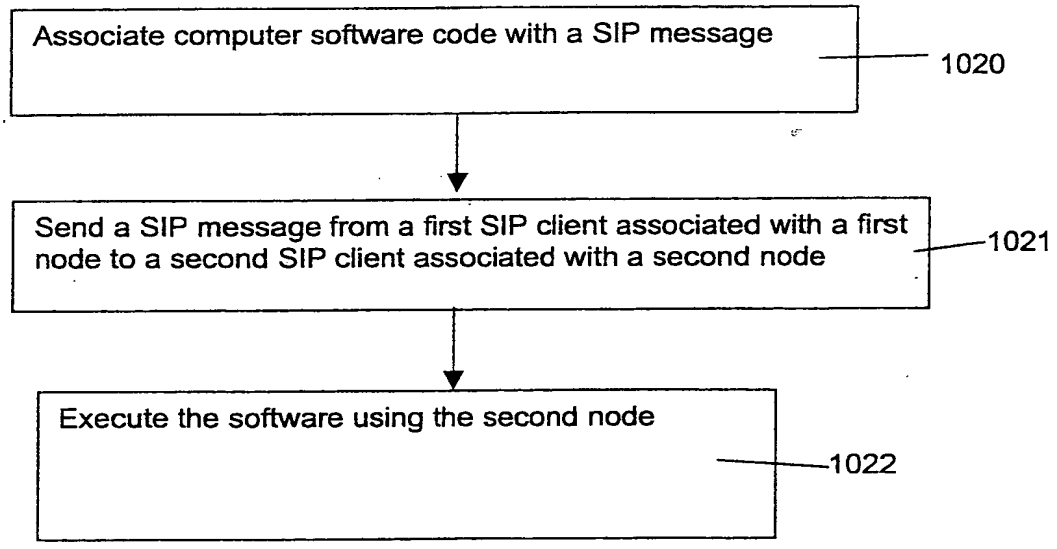

Figure 13

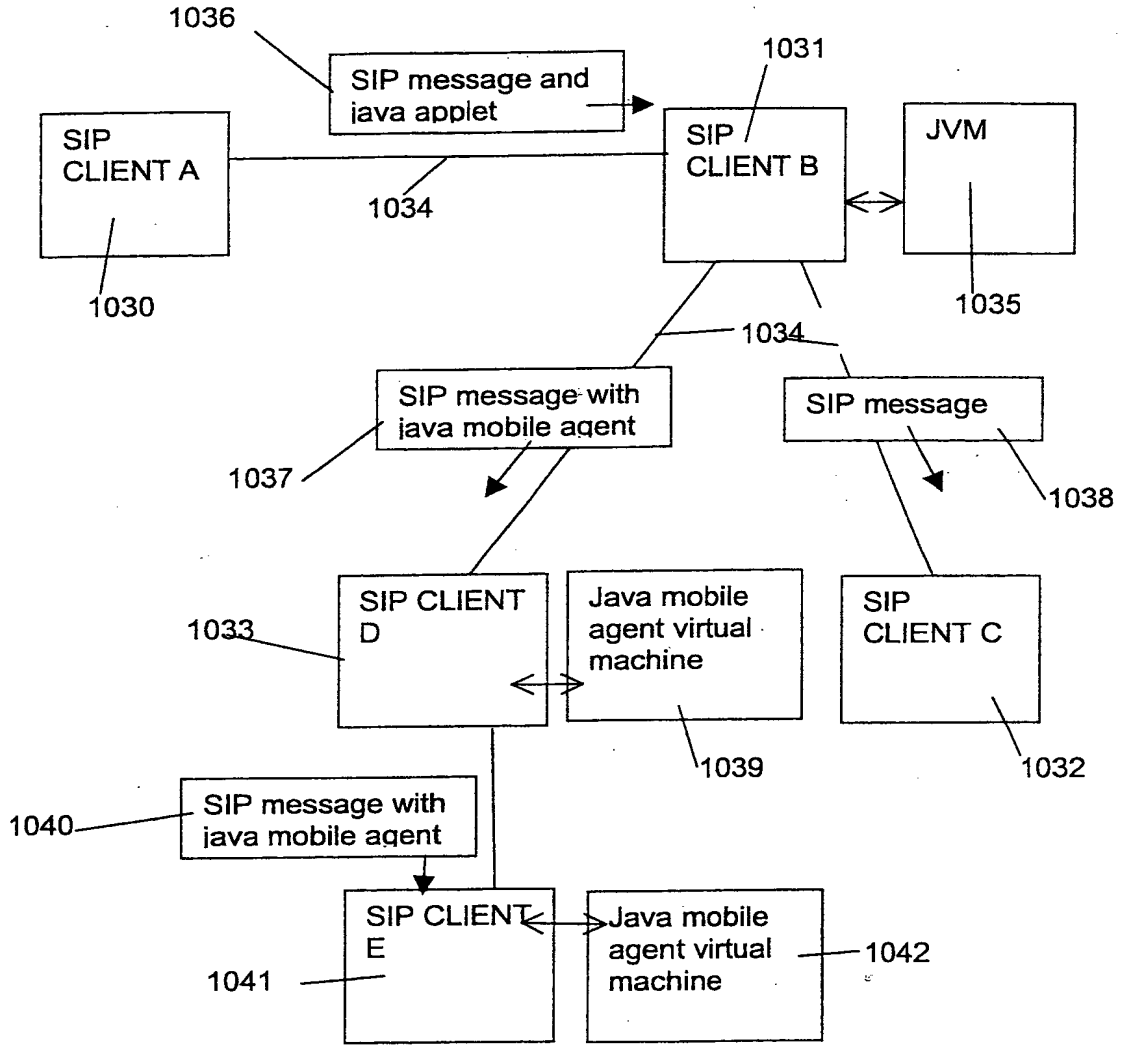
1036
SIP message and java applet
1031
SIP CLIENT A
SIP CLIENT B
JVM
1034
1030
1035
1034
SIP message with java mobile agent
SIP message
1037
1038
SIP CLIENT D
Java mobile agent virtual machine
SIP CLIENT C
1033
1039
1032
1040
SIP message with java mobile agent
SIP CLIENT E
Java mobile agent virtual machine
1042
1041

Figure 14

C ->S: INVITE sip:watson@boston.bell-tel.com SIP/2.0
Via: SIP/2.0/UDP kton.bell-tel.com>
From: A. Bell ,sip:a.g.bell@bell-tel.com>
To: T. Watson ,sip:watson@bell-tel.com.
Call-ID: 3298420296@kton.bell.tel.com
Cseq: 1 INVITE
Subject: Mr. Watson, come here.
Content-Type: multipart/mixed; boundary=3E4A567F4C8A
(or URL for java applet)
Content-Length: ...
Require: org.ietf.sip.java-enhanced-sip

(Within the message body)

--3E4A567F4C8A
Content-Type: application/x-sipjava
Content-Encoding: binary
Content-length: xxx
...Java applet or Java mobile agent for SIP message processing...
--3E4A567F4C8A—

1050

Figure 15

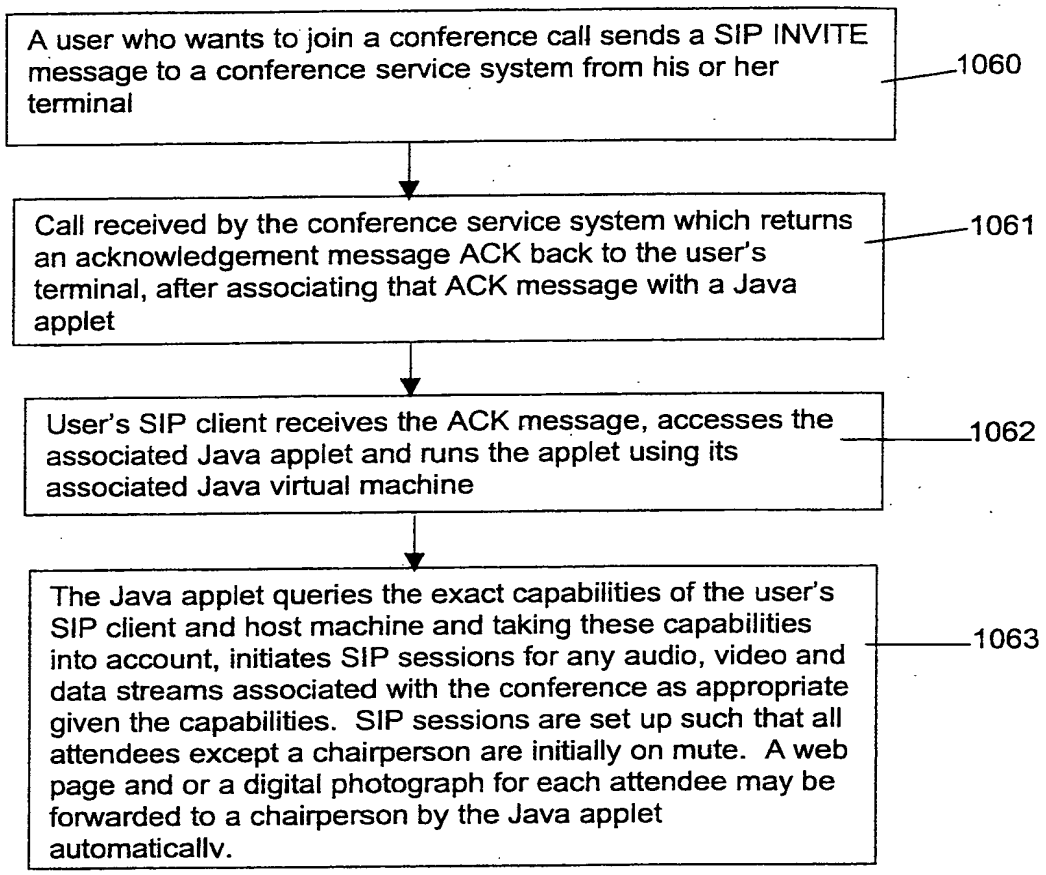

Figure 17

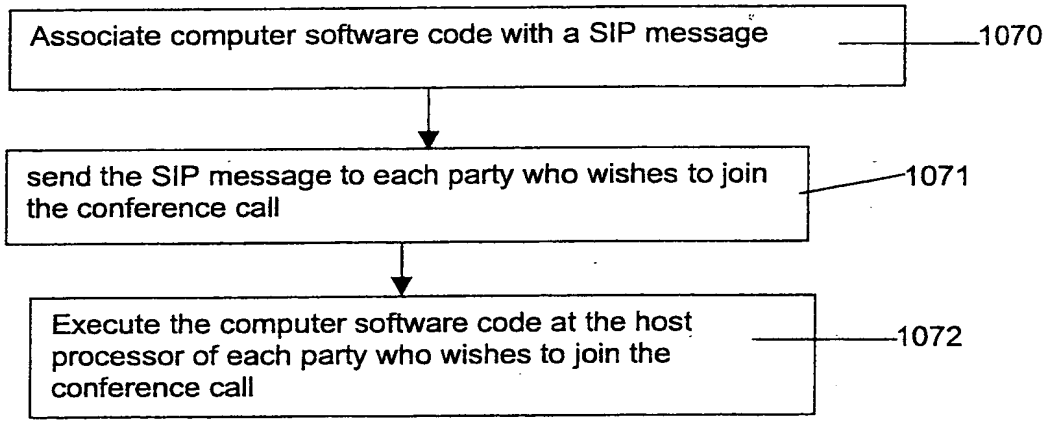

Figure 18

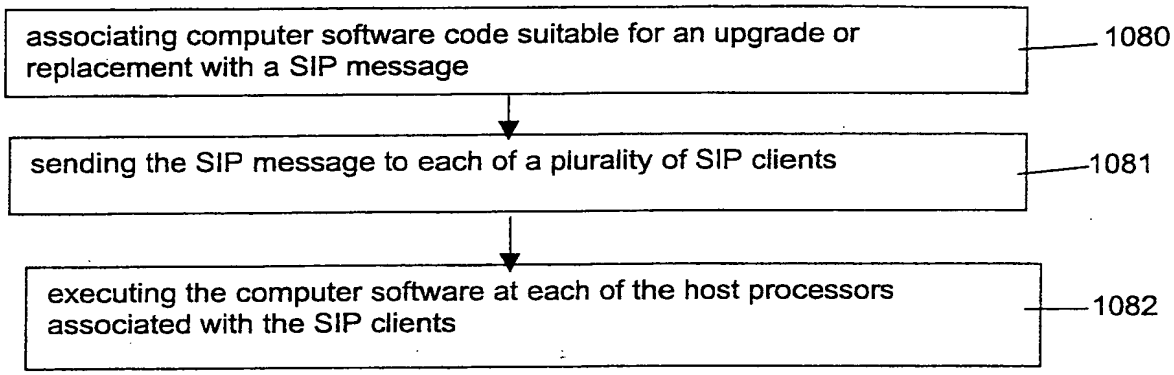

Figure 19

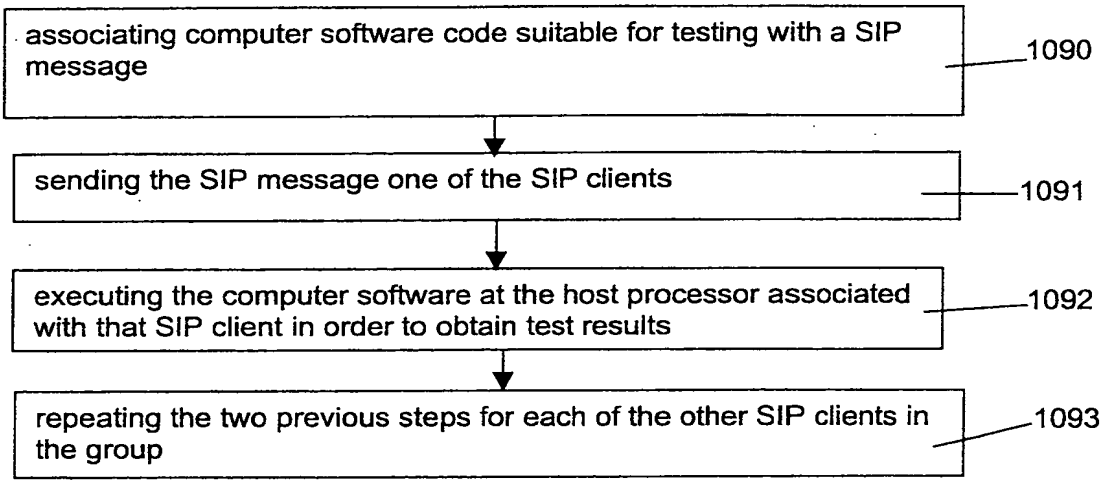

Figure 20

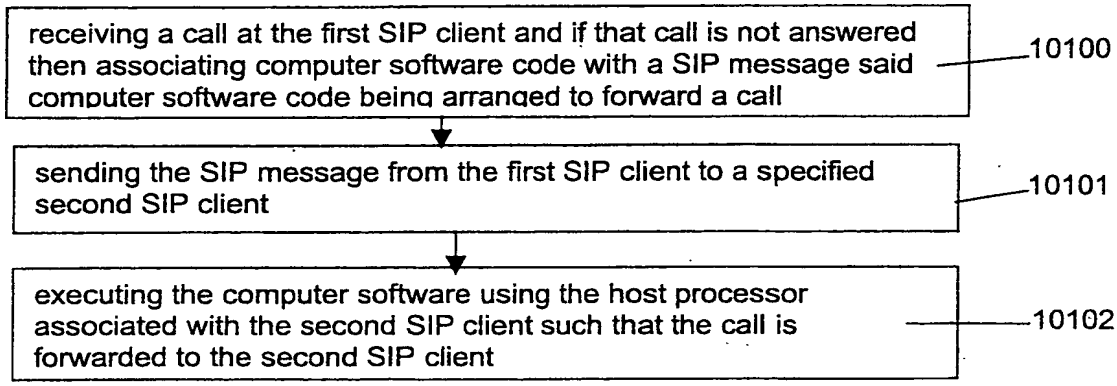

Figure 21

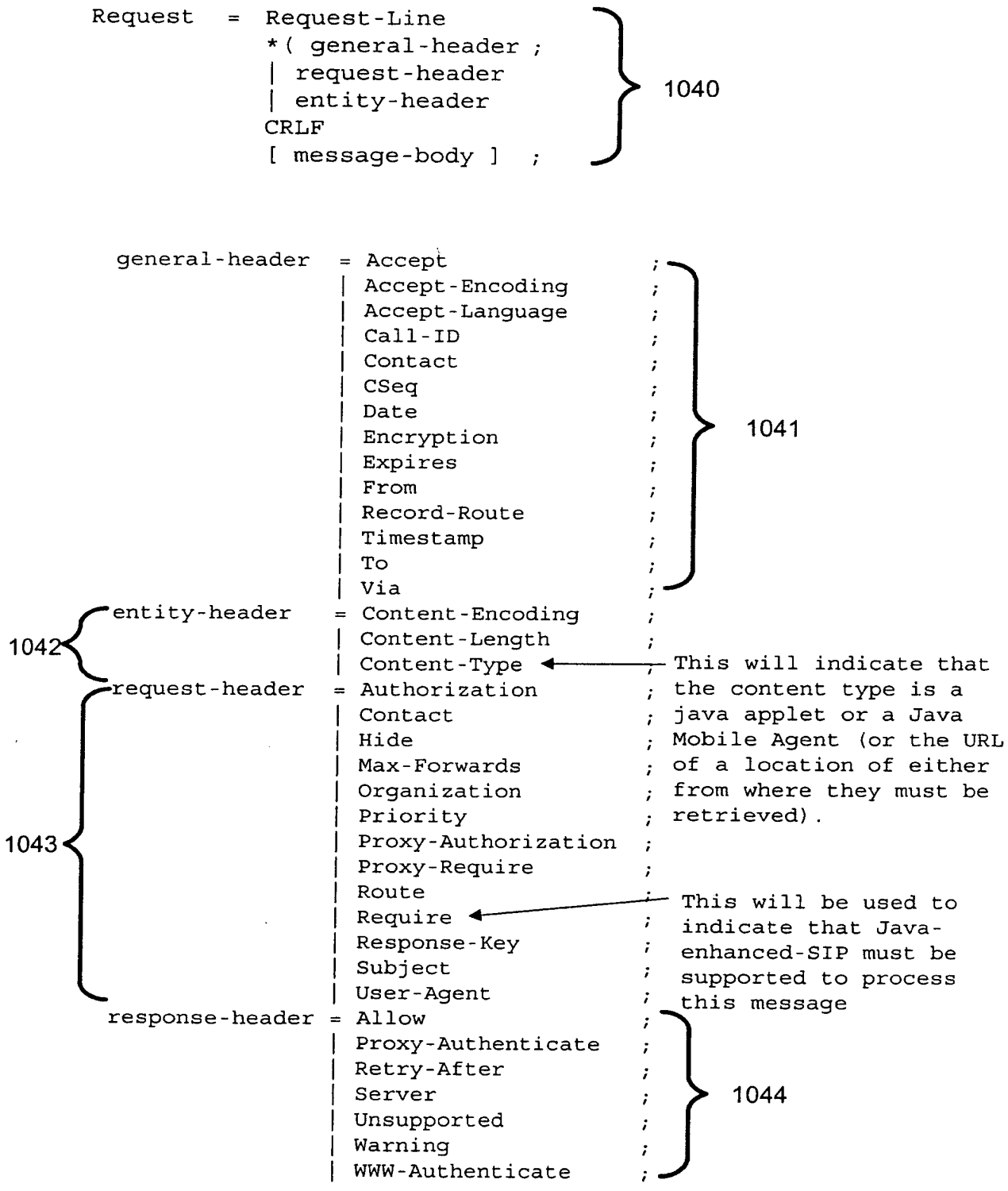
Request = Request-Line
*(general-header ;
| request-header
| entity-header
CRLF
[message-body] ;
1040
general-header = Accept ;
| Accept-Encoding ;
| Accept-Language ;
| Call-ID ;
| Contact ;
| CSeq ;
| Date ;
| Encryption ;
| Expires ;
| From ;
| Record-Route ;
| Timestamp ;
| To ;
| Via ;
1041
1042
entity-header = Content-Encoding ;
| Content-Length ;
| Content-Type ;
This will indicate that the content type is a java applet or a Java Mobile Agent (or the URL of a location of either from where they must be retrieved).
request-header = Authorization ;
| Contact ;
| Hide ;
| Max-Forwards ;
| Organization ;
| Priority ;
| Proxy-Authorization ;
| Proxy-Require ;
| Route ;
| Require ;
| Response-Key ;
| Subject ;
| User-Agent ;
1043
This will be used to indicate that Java-enhanced-SIP must be supported to process this message
response-header = Allow ;
| Proxy-Authenticate ;
| Retry-After ;
| Server ;
| Unsupported ;
| Warning ;
| WWW-Authenticate ;
1044

Figure 16